Practice: 464 - Irrigation Land Leveling

Scenario: #1 - Level and Shape

Scenario Description:

This scenario will level a typical 80 acres of irrigated crop land surface to enhance uniform flow of surface water to improve irrigation efficiency using Dirt Pans/carry-all/pan-scraper equipment. The typical volume of earth moved is 100 to 500 cubic yards per acre.
Resource Concern: Excess/Insufficient - Inefficient Use of Irrigation Water
Associated Conservation Practices: 433 - Irrigation System, Surface and Subsurface; 607 - Surface Drain, Field Ditch; 388 - Irrigation Field Ditch; 449 - Irrigation Water Management; or 587 - Structure for Water Control.

Before Situation:

Irregular field surface reduces uniformity of applied surface water and thus irrigation efficiency characterized by localized ponding and/or excess runoff/runon.

After Situation:

Cropland will be reshaped and leveled to provide uniform distribution of applied irrigation water in order to improve irrigation efficiency. Typical scenario is an 80-acre cropland field with 250 CY/acre of earthwork.

Scenario Feature Measure: Volume of Earth Moved

Scenario Unit: Cubic Yard

Scenario Typical Size: 20,000

Scenario Cost: $40,292.68 **Scenario Cost/Unit:** $2.01

Cost Details (by category):

Component Name	ID	Component Description	Unit	Price ($/unit)	Quantity	Cost
Equipment/Installation						
Excavation, Common Earth, side cast, small equipment	48	Bulk excavation and side casting of common earth with hydraulic excavator with less than 1 CY capacity. Includes equipment and labor.	Cubic yard	$2.00	20000	$40,000.00
Mobilization						
Mobilization, small equipment	1138	Equipment <70 HP but can't be transported by a pick-up truck or with typical weights between 3,500 to 14,000 pounds.	Each	$146.34	2	$292.68